

Date: Fri, 17 Jun 94 04:30:25 PDT  
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>  
Errors-To: Ham-Homebrew-Errors@UCSD.Edu  
Reply-To: Ham-Homebrew@UCSD.Edu  
Precedence: Bulk  
Subject: Ham-Homebrew Digest V94 #165  
To: Ham-Homebrew

Ham-Homebrew Digest                      Fri, 17 Jun 94                      Volume 94 : Issue 165

Today's Topics:

    "Renewal" reusable alkaline batteries  
        ATV transmitter plans? (2 msgs)  
Conversion of Maxon 49-f5 to 6 meters ?? (2 msgs)  
        PIN Diodes  
    Question : Possible to make a scanner ??  
        Ten Tec Kit 2mtr synthesized txcvr

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>  
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 16 Jun 1994 18:43:16 GMT  
From: ihnp4.ucsd.edu!agate!kabuki.EECS.Berkeley.EDU!kennish@network.ucsd.edu  
Subject: "Renewal" reusable alkaline batteries  
To: ham-homebrew@ucsd.edu

In article <1994Jun15.221000.3518@eisner>,  
George Cornelius <cornelius@eisner.decus.org> wrote:  
>I am interested in information about Rayovac "Renewal" reusable alkaline  
>batteries.  
>  
>They look like a good deal, since the batteries themselves are similar  
>in cost to ordinary alkalines, and unlike other rechargables have the  
>full capacity of an alkaline battery , at least for the first few times  
>the battery is reused.  
>  
>Does anyone have experience with them or understand how they work? Is  
>it possible to charge them yourselves, or are the specs for doing so

>being kept quiet by the manufacturer?

>

>--

>George Cornelius, WB0RRB

cornelius@eisner.decus.org

>

cornelius@mayo.edu

My humble and personal opinion:

They are not suited well for amateur use. They have a relatively short cycle life (25 cycles), with degrading capacity after 5 cycles. The internal impedance is quite high, so that if you count on them to supply 1A of power, the terminal voltage will fall significantly. They have a sloping discharge characteristic, so the last 50% of the cell capacity is supplied at 1.15V and less. They can't be quick charged.

They are probably OK, for occasional use, where you may want to use alkalines in the first place. But, for everyday cycling use, get NiCds.

-Ken

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Date: 16 Jun 1994 22:42:17 GMT

From: ihnp4.ucsd.edu!library.ucla.edu!europa.eng.gtefsd.com!

newsxfer.itd.umich.edu!nntp.cs.ubc.ca!unixg.ubc.ca!quartz.ucs.ualberta.ca!

reddy@network.ucsd.edu

Subject: ATV transmitter plans?

To: ham-homebrew@ucsd.edu

does any one know where i can by an inexpensive atv transmitter or where i can get the plans for one

I would like something small and self contained that has a NTSC input and an antenna output

thanks

-----  
Date: 16 Jun 1994 22:24:38 -0700

From: nntp.crl.com!crl.crl.com!not-for-mail@decwrl.dec.com

Subject: ATV transmitter plans?

To: ham-homebrew@ucsd.edu

Reddy Praveen (reddy@ee.ualberta.ca) wrote:

: does any one know where i can by an inexpensive atv transmitter or where

: i can get the plans for one

: I would like something small and self contained that has a NTSC input

: and an antenna output  
: thanks

Check out the latest issue of Electronics Now (July 1994), full diagrams and all.

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Date: Fri, 17 Jun 1994 00:17:24 GMT  
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!cs.utexas.edu!  
convex!news.duke.edu!concert!salzo!toybox!n4zbb@network.ucsd.edu  
Subject: Conversion of Maxon 49-f5 to 6 meters ??  
To: ham-homebrew@ucsd.edu

Has anyone done/know details on converting a maxon 49-f5 transceiver to 6 m operation. I know it has one of those speciality PLL ICs for 49Mhz, and wondered if any homebrewer out there has tweaked it for 6. I would like to maintain the earpiece "mike" on the unit and boost its output.

Thanks for any info.

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Date: 17 Jun 1994 03:30:37 GMT  
From: korie!newsworthy.West.Sun.COM!abyss.West.Sun.COM!spot!myers@ames.arpa  
Subject: Conversion of Maxon 49-f5 to 6 meters ??  
To: ham-homebrew@ucsd.edu

In article 10205@toybox.raleigh.nc.us, n4zbb@toybox.raleigh.nc.us (Ken M. Edwards) writes:

>Has anyone done/know details on converting a maxon 49-f5  
>transceiver to 6 m operation. I know it has one of those  
>speciality PLL ICs for 49Mhz, and wondered if any homebrewer  
>out there has tweaked it for 6. I would like to maintain the  
>earpiece "mike" on the unit and boost its output.

I looked at the Tandy TRC-503 (I think). 5 synthesized channels, undoubtedly made by Maxon, like the HTX-202, and I concluded that moving it from the designed frequencies was a pain in the butt. The biggest problem would be the fact that the 10.24MHz crystal used for the PLL reference timebase is also used as the 2nd LO injection; changing this changes the 2nd LO offset, which probably makes the radio pretty deaf. Erik Sorgatz posted some notes suggesting success in converting these exact radios, but I'm pretty dubious myself.

Good luck!

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\* Dana H. Myers KK6JQ, DoD#: j | Views expressed here are  
\*  
\* (310) 348-6043 | mine and do not necessarily \*  
\* Dana.Myers@West.Sun.Com | reflect those of my employer  
\*  
\* This Extra supports the abolition of the 13 and 20 WPM tests \*

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Date: 16 Jun 94 13:08:15 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: PIN Diodes  
To: ham-homebrew@ucsd.edu

The HP 3081 PIN diodes turn on full(lowest resistance)  
with 100 ma of current thru them....I advise that users  
look at the data sheet before spending the bucks...  
10 ma will also work but you will have more insertion  
loss and poorer intermod response then 100 ma.

Clark Fishman WA2UNN cfishman@pica.army.mil

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Date: Thu, 16 Jun 1994 17:46:36 GMT  
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!gatech!kd4nc!ke4zv!  
gary@network.ucsd.edu  
Subject: Question : Possible to make a scanner ??  
To: ham-homebrew@ucsd.edu

In article <9406161033.AA05645@csam.MY> fhlee@csam.MY (Lee Fook Heng) writes:  
>Sorry if this is a stupid question. I am new and very interested in scanners.  
>I was just wondering if it is possible to assemble/"make" a scanner  
>from scratch - I mean going to the electrical shop to buy those transistors,  
>diodes, etc and assemble it up.

Sure it's possible. A friend of mine builds live steam locomotives in  
his basement. Anything is possible to build if you put enough effort  
into it. A better question is whether it's practical. Today's scanners  
use custom chips that you aren't going to find at the local parts store.  
To replace those in your design, you're going to have to use a lot more  
discrete logic and a general purpose microprocessor that you program

with the desired scanning algorithms, if you want your scanner to work like commercial scanners. (You can make an analog scanner with swept oscillators like those of 20-30 years ago, but I doubt that's what you want.)

A scanner is nothing more than a wide range receiver that can automatically tune itself and stop when it detects a signal. That part is easy. Receivers aren't hard to build, and automatically tunable oscillators aren't hard to build (typically a programmable synthesizer in modern scanners, though some still use switched crystal oscillators). The circuit for stopping on the center frequency of a detected signal is a little tricky, but not hard either. What becomes harder are the programmable functions of modern scanners. Commercial scanners use custom microcontrollers to do that. You'll have to build a small computer and program it to do the same things. (You can interface a receiver to an existing computer, like the PC, and do the programming there, but usually you'll want to use one of the single chip field programmable controllers on the market.)

If you want features not available on commercial scanners, then you will have to build your own. But if you are satisfied with the features of existing commercial scanners, their low price means anything you build will cost more, and take much more time to do, than it's likely worth.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: 17 Jun 1994 04:10:57 GMT  
From: ihnp4.ucsd.edu!usc!cs.utexas.edu!math.ohio-state.edu!magnus.acs.ohio-state.edu!usenet.ins.cwru.edu!ns.mcs.kent.edu!kira.cc.uakron.edu!  
marconi.w8upd.uakron.edu!recny@network.ucsd.edu  
Subject: Ten Tec Kit 2mtr synthesized txcvr  
To: ham-homebrew@ucsd.edu

Has anyone tried one of the new Ten Tek 2 meter mobile kits?

I saw the prototype at Dayton and they were supposed to start shipping in May. I'd like to hear from anyone who has tried it.

Thanks & 73 de Bob / N8SQT  
recny@marconi.w8upd.uakron.edu

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End of Ham-Homebrew Digest V94 #165

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